# Article information:

Tumour exosomal CEMIP protein promotes cancer cell colonization in brain metastasis | Nature Cell Biology
[https://www.nature.com/articles/s41556-019-0404-4?utm\_source=xmol=affiliate=meta=DDCN\_1\_GL01\_metadata](https://www.nature.com/articles/s41556-019-0404-4?utm_source=xmol&utm_medium=affiliate&utm_content=meta&utm_campaign=DDCN_1_GL01_metadata)

# Article summary:

1. Brain metastasis (BrM) is a major cause of mortality in cancer patients, yet the molecular determinants that drive metastasis remain poorly understood.

2. Tumour-derived exosomes are crucial players in cell-to-cell communication and can reshape distant microenvironments, driving organ-specific metastasis.

3. This study identified CEMIP, a Wnt-related protein enriched in brain metastatic breast and lung tumour-derived exosomes, as a key factor promoting BrM by generating a pro-metastatic environment.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

This article provides an interesting insight into the role of tumour-derived exosomes in remodelling the brain microenvironment during metastatic colonization. The authors have used an ex vivo organotypic brain slice culture system to optimize their research and provide evidence for their claims. The authors have also provided evidence from human primary tumour (PT) and metastatic tumour (MT) tissues which further supports their findings.

However, there are some potential biases that should be noted when considering this article’s trustworthiness and reliability. Firstly, the authors have not explored any counterarguments or alternative explanations for their findings which could weaken their conclusions. Secondly, the authors have not discussed any possible risks associated with targeting CEMIP for therapeutic purposes which could be important to consider when assessing its potential clinical applications. Thirdly, the authors have only presented one side of the argument without exploring any other potential factors that could influence BrM progression or survival rates which could lead to an incomplete understanding of the issue at hand. Finally, it is unclear whether all relevant studies were included in this review as some may have been omitted due to bias or lack of space which could lead to an incomplete picture being presented.

In conclusion, while this article provides interesting insights into how tumour-derived exosomes can promote BrM progression, there are some potential biases that should be taken into consideration when assessing its trustworthiness and reliability such as lack of counterarguments or alternative explanations for their findings, lack of discussion on possible risks associated with targeting CEMIP therapeutically, one sided reporting without exploring other potential factors influencing BrM progression or survival rates and potentially omitting relevant studies due to bias or lack of space.

# Topics for further research:

* Brain metastasis risk factors
* Tumour-derived exosomes therapeutic applications
* CEMIP targeting risks
* Organotypic brain slice culture system
* Human primary tumour and metastatic tumour tissues
* Alternative explanations for BrM progression

# Report location:

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